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MAILSTOP: APPEAL BRIEF - PATENTS

AF/2863

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	:	Thomas G. Xydis
Appl. No.	:	09/998,659
Filed	:	November 29, 2001
Title	:	METHOD OF SECURING ACCESS TO A USER HAVING AN ENHANCED SECURITY PROXIMITY TOKEN
Grp./A.U.	:	2863
Examiner	:	Tung S. Lau
Docket No.	:	65,116-036

TRANSMITTAL OF APPEAL BRIEF

Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

MAILSTOP: APPEAL BRIEF - PATENTS

Dear Sir:

Applicant submits the attached Appeal Brief in response to the Official Action dated September 9, 2003. A check in the amount of $330.00 is attached to cover the required fee for submitting this Appeal Brief. The Commissioner is authorized to charge any additional fees or credit any overpayment to Deposit Account No. 08-2789. A duplicate copy of this letter is enclosed herewith.

Respectfully submitted,

HOWARD & HOWARD ATTORNEYS, P.C.

February 4, 2004
Date

Harold W. Milton, Registration No. 22,180
The Pinehurst Office Center, Suite #101
39400 Woodward Ave.
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CERTIFICATE OF MAILING

I hereby certify that the attached Appeal Brief for application serial number **09/998,659** filed **November 29, 2001** is being deposited with the United States Postal Service as first class mail, postage prepaid, in an envelope addressed to the **Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450** on **February 4, 2004.**

Anne L. Kubit

Anne L. Kubit

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The inventor assigned this application to Ensure Technologies, Inc. as evidenced by an assignment recorded at reel 012353, frame 0779.

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There are no related appeals or interference's.

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Claims 1-9 and 12-17 are on appeal and are attached hereto in the appendix. Claims 10 and 11 have been cancelled. Claims 1-3, 5-9, and 12-17 stand finally rejected under 35 U.S.C. §103(a). Claim 4 is objected to as being dependent upon a rejected base clam.

Status of Amendments

All amendments have been entered and are reflected in the claims in the Appendix.

Summary of Invention

As described under the Detailed Description section of the specification, the subject invention is a method of determining proximity of a user 11 having a first electronic device 12 to a second electronic device 14 for allowing the user 11 access to the second electronic device 14. Referring to paragraph [0017], the method is carried out by transmitting data 44 stored within the second electronic device 14. The data 44 is partitioned, such that the entire packet of data 44 is divided into data blocks 48, 50, 52 and each of the data blocks 48, 50, 52 are transmitted at different frequencies.

Referring to paragraph [0019], the data blocks 48, 50, 52 are spread over a plurality of radio frequencies and transmitted as signals at the different frequencies to create a secure transmission between the first electronic device 12 and the second electronic device 14. Such a transmittance technique is commonly known and referred to as frequency hopping spread spectrum techniques.

As discussed at paragraph [0034], the subject invention measures a signal

strength for each of the data blocks 48, 50, 52 transmitted at each of the frequencies. Depending upon the specific application of the subject invention and the desired amount of security measures, an overall signal strength is determined based upon the signal strength measurements of the data blocks 48, 50, 52 for the transmittance of the entire packet of data 44. The overall signal strength is determined from individual measurements of signal strength for each of a predetermined number of the detected plurality of signals at the different frequencies. The overall signal strength is then compared to a predetermined threshold based upon the desired amount of security measures to be implemented between the first electronic device 12 and the second electronic 14. The second electronic device 14 is enabled in response to the overall signal strength being above the predetermined threshold or disabled in response to the overall signal strength being below the predetermined threshold.

Even after enabling the second electronic device 14, when the overall signal strength drops below the predetermined threshold, the second electronic device 14 is disabled. If more security measures are desired to protect the integrity of the second electronic device 14, the overall signal strength may be determined more frequently and/or the predetermined threshold may be increased. If lesser security measures are desired, the overall signal strength may be determined less frequently and/or the predetermined threshold may be decreased.

Issues

I. Whether the Examiner's rejection of claims 1, 2, 3, 5, 7, 8, 9, 12, 13, 15, 16, and 17 under 35 U.S.C. §103(a) as being unpatentable over Wallstedt et al. (U.S. Patent No. 6,330,450) in view of Decker et al. (U.S. Patent No.

4,980,897) is proper.

II. Whether the Examiner's rejection of claims 6 and 14 under 35 U.S.C. §103(a) as being unpatentable over Wallstedt et al. (U.S. Patent No. 6,330,450) in view of Decker et al. (U.S. Patent No. 4,980,897) and further in view of Nicholson (U.S. Patent No. 4,980,897) is proper.

Grouping of Claims

As to the rejections applied against Claims 1-9 and 12-17 under 35 U.S.C. §103(a), it is applicant's intention that the rejected claims stand or fall together.

Argument

Rejection of Claims 1-3, 5, 7-9, 12, 13, and 15-17 Under 35 U.S.C. §103(a)

Claims 1-3, 5, 7-9, 12, 13, and 15-17 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Wallstedt et al. (U.S. Patent No. 6,330,450) in view of Decker et al. (U.S. Patent No. 4,980,897).

The Wallstedt et al. patent discloses a system and method for minimizing effects of internal and external transmitter noise to improve control decisions that are based on signal strength. For example, referring to Figure 1, two electronic devices 1, 2 are transmitting a signal at a certain frequency F1, F2 to be detected by a base station 5. The transmitter for each of the electronic devices 1, 2, in addition to sending the signal, produces noise at other frequencies as is known in the art. See Col. 1, lines 48-52.

The base station 5 measures the signal strength of the noise that is produced

and then takes corrective actions if the signal strength of the noise is above the signal strength of the signal. In other words, the noise being transmitted from the one device 1 interferes with the signal of the other device 2 and produces an inaccurate signal strength measurement. The corrective action taken may include ignoring the signal strength on the affected frequencies or shutting down the transmitter altogether. More specifically, Wallstedt is directed towards preventing noise transmitted by the electronic device 1 at the frequency F2 from interfering with the signal transmitted by the electronic device 2 at the frequency F2. The base station 5 may measure a stronger signal strength at the frequency F2 because of the noise from the electronic device 1 add to the signal from the electronic device 2, which may result in improper operation of the system. See Col. 3, lines 5-16.

The Decker et al. patent discloses an apparatus and method for performing trellis encoding and decoding for data transmission. Referring to Col. 3, lines 48-60, digital bits are encoded at a first device and each of the encoded digital bits are transmitted as signals to a second device. The second device decodes the signals and extracts the digital bits which are reproductions of the original digital bits. The purpose of the encoding and decoding, stated at Col. 2, lines 39-46, is to reduce the implementation of the encoding and decoding apparatus as well as reducing data throughput delay. The apparatus and method retains an ability to handle variations from channel to channel in data transmission rates, signal power, and noise power. The method taught by Decker et al. is analogous to a method of transmitting data via frequency hopping spread spectrum.

As stated by the Examiner in the Final Rejection of September 9, 2003, the Examiner contends that it would have been obvious to one of ordinary skill in the art

at the time the invention was made to modify Wallstedt to have the data partitioned in the device and use modulation taught by Decker in order to reduce data throughput and reduce implementation complexity.

Applicant respectfully contends that the Examiner has failed to establish a prima facie case of obviousness. As discussed above, Applicant is not claiming to have invented transmitting signals using frequency hopping spread spectrum techniques, nor claiming to be the first to take actions based upon a measured signal strength. To the contrary, Applicant is claiming to have invented a method of allowing a user secured access to an electronic device that is communicating using the frequency hopping spread spectrum technique. Since the frequency hopping spread spectrum techniques transmit data 44 in data blocks 48, 50, 52 at multiple frequencies, a secure system must be able to measure multiple signal strengths, determine an overall signal strength from the signals detected, and then either allow or deny access to the user based upon the overall signal strength. The law is adequately set forth in the Manual for Patent Examining Procedure (MPEP):

> **2141 35 U.S.C. 103; the Graham Factual Inquiries**
>
> ...
>
> **BASIC CONSIDERATIONS WHICH APPLY TO OBVIOUSNESS REJECTIONS**
>
> When applying 35 U.S.C. 103, the following tenets of patent law must be adhered to:
>
> (A) the claimed invention must be considered as a whole;
>
> (B) the references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination;
>
> (C) the references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention; and
>
> (D) reasonable expectation of success is the standard with which obviousness is determined.
>
> *Hodosh v. Block Drug Co., Inc.*, 786 F.2d 1136, 1143 n.5, 229 USPQ 182, 187 n.5 (Fed. Cir. 1986).

2142 Legal Concept of *Prima Facie* Obviousness [R-1]

. . . The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness . . .

ESTABLISHING A *PRIMA FACIE* CASE OF OBVIOUSNESS

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not be based on applicants disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP '2143 - '2143.03 for decisions pertinent to each of these criteria.

The initial burden is on the examiner to provide some suggestion of the desirability of doing what the inventor has done. To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references. *Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985).

2143.01 Suggestion or Motivation To Modify the References

...

THE PROPOSED MODIFICATION CANNOT RENDER THE PRIOR ART UNSATISFACTORY FOR ITS INTENDED PURPOSE

If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984)

2143.03 All Claim Limitations Must Be Taught or Suggested [R-1]

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). All words in a claim must be considered in judging the patentability of that claim against the prior art. *In re Wilson*, 424 F.2d 1382, 165 USPQ 494, 496

(CCPA 1970). If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837, F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

As further set forth in *In re Sang Su Lee*, 277 F.3d 1338 (Fed. Cir. 2002), citing *Brown & Williamson Tobacco Corp. v. Phillip Morris, Inc.*, 229 F.3d 1120, 1124-25 (Fed. Cir. 2000), for a rejection of a claim under 35 U.S.C. § 103(a), it is required that there be some teaching or motivation found within the references themselves that would lead one of ordinary skill in the art to combine the references and, furthermore, that once combined the references must either disclose each and every limitation of the claim or make obvious any such limitations not disclosed. Absent a teaching or motivation within the references themselves for combining the references, it is improper for the Examiner to combine the references. *Id.*

First, the Examiner has failed to provide some teaching, suggestion, or motivation within the references themselves that would lead one of ordinary skill in the art to combine the references. Wallstedt is directed toward a first electronic device 1 maintaining contact with a receiver, such as a base station 5 of cellular network, while a second electronic device 2 also maintains contact with the base station 5. Noise that is transmitted from the two electronic devices 1, 2 creates interference at the other frequencies for the other device. This additional noise causes the system to operate improperly. These two devices do not interact with one another and do not establish communication between the first electronic device and the second electronic device. Decker et al. is simply directed toward a method of transmitting partitioned data at different frequencies. Even though both references relate to transmitting signals, there must be some suggestion or motivation to combine the teachings of the references. One skilled in the art would not look to Decker et al. for

any reason other than to implement frequency hopping spread spectrum techniques, which is old and well known in the art, into a cellular system of Wallstedt. However, there is no teaching, suggestion, or motivation within the references themselves that would lead one of ordinary skill in the art to combine the references.

Secondly, even if the references were combined, the references do not disclose each and every limitation of the claimed invention nor make obvious those limitations not disclosed. Specifically, the limitation of determining an overall signal strength from a predetermined number of measured signal strengths and comparing the overall signal strength to a predetermined threshold is not disclosed. Wallstedt discloses measuring a strength of a noise signal transmitted from one device at one frequency and determining if the noise is interfering with any signals from other devices on that frequency. If the noise signal is interfering with the other signal from the other device, then either the signal is ignored or the device is disabled. Decker et al. discloses transmitting data in data packets at multiple frequencies. In the subject invention, if the measured signals were ignored, the system would lack the added security that creates the secured system. Likewise, if the device was disabled in the subject invention, the purpose of creating the secured communication between the first electronic device 12 and the second electronic device 14 would be defeated. Therefore, even if combined, these references do not disclose determining the overall signal strength from the predetermined number of measured signal strengths and do not disclose comparing the overall signal strength to the predetermined threshold.

Further, the limitation of enabling a second electronic device in response to the overall strength being above the predetermined threshold and disabling the second electronic device in response to the overall signal strength being below the

predetermined threshold is not disclosed. As discussed above, one purpose of the subject invention is to only allow access to an authorized user having the first electronic device 12 that is within a close proximity to the second electronic device 14. Since these devices 12, 14 communicate using frequency hopping spread spectrum techniques, the overall signal strength must be determined and compared to the predetermined threshold in order to create the secured system. Even if these references were combined and the noise signal was transmitted at multiple frequencies, the device transmitting the signal would be disabled in response to the signal strength being above the predetermined threshold. Disabling the device would not create a secure system that only allows access to authorized users within close proximity. Contrasting the subject invention, the device is only enabled in response to the overall signal strength being above the predetermined threshold, thereby creating the secure system. Therefore, the limitation of enabling and disabling the second electronic device in response to the overall strength being above and below the predetermined threshold is not disclosed.

In summary, an obviousness rejection using the prior art of record cannot be sustained against Claims 1-3, 5, 7-9, 12, 13, and 15-17. It is respectfully submitted that the rejection of these claims under 35 U.S.C. §103 is improper. The Examiner's position in this rejection, which is wholly unsupported by the prior art cited, must be reversed.

Rejection of Claims 6 and 14 Under 35 U.S.C. §103(a)

Claims 6 and 14 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Wallstedt et al. in view of Decker et al. and further in view of Nicholson (U.S. Patent No. 4,980,897). Claims 6 and 14 depend from independent claim 1, thus claim

1 being allowable, the rejection is now moot.

CLOSING

For the reasons set forth above, the rejections of Claims 1-9 and 12-17 under 35 U.S.C. §103 must be reversed.

Respectfully submitted,

HOWARD & HOWARD ATTORNEYS, P.C.

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Anne L. Kubit

Anne L. Kubit

(9) Appendix

1. **(Previously Presented)** A method of determining proximity of a user **(11)** having a first electronic device **(12)** to a second electronic device **(14)** for allowing the user **(11)** access to the second electronic device **(14)**, said method comprising the steps of:

partitioning data **(44)** stored within the second electronic device **(14)** into a plurality of data blocks **(48)**, **(50)**, **(52)** for transmittance of the data blocks **(48)**, **(50)**, **(52)** over wireless connections to the first electronic device **(12)**;

spreading the plurality of data blocks **(48)**, **(50)**, **(52)** over a plurality of radio frequencies **(*f*1, *f*2, *f*3)** such that each of the data blocks **(48)**, **(50)**, **(52)** is transmitted at a different of the frequencies **(*f*1, *f*2, *f*3)** for secure transmission between the first electronic device **(12)** and the second electronic device **(14)**;

transmitting the data blocks **(48)**, **(50)**, **(52)** in a plurality of signals at the different frequencies **(*f*1, *f*2, *f*3)** to establish communication between the first electronic device **(12)** and the second electronic device **(14)**;

detecting the plurality of signals at the different frequencies with the first electronic device **(12)**;

measuring a signal strength for each of a predetermined number of the detected plurality of signals at the different frequencies **(*f*1, *f*2, *f*3)**;

determining an overall signal strength from the predetermined number of measured signal strengths and comparing the overall signal strength to a predetermined threshold; and

enabling the second electronic device **(14)** in response to the overall signal strength being above the predetermined threshold and disabling the second

electronic device **(14)** in response to the overall signal strength being below the predetermined threshold.

2. **(Original)** A method as set forth in claim 1 wherein the step of determining the overall signal strength is further defined as averaging the signal strength measurements for the predetermined number of detected signals to establish the overall signal strength.

3. **(Original)** A method as set forth in claim 1 wherein the step of determining the overall signal strength is further defined as isolating the detected signal having the maximum measured signal strength from all the predetermined number of detected signals to establish the overall signal strength.

4. **(Original)** A method as set forth in claim 1 wherein the step of determining the overall signal strength is further defined as converting each of the signal strength measurements for each of the predetermined number of detected signals to logarithmic values and averaging the logarithmic values of all the predetermined number of detected signals to establish the overall signal strength.

5. **(Original)** A method as set forth in claim 1 further including the step of scanning the predetermined number of detected signals during a time interval and determining the overall signal strength from the measured signal strengths during the time interval.

6. **(Original)** A method as set forth in claim 5 wherein the determining of the overall signal strength is further defined as isolating the detected signal having the maximum measured signal strength from all the predetermined number of detected signals to establish the overall signal strength.

7. **(Original)** A method as set forth in claim 5 wherein the determining of the overall signal strength is further defined as averaging the signal strength measurements measured during the time interval to establish the overall signal strength.

8. **(Original)** A method as set forth in claim 1 further including the step of transmitting the overall signal strength from the first electronic device **(12)** to the second electronic device **(14)** for comparing to the predetermined threshold and enabling the second electronic device **(14)** in response to the signal strength being above the predetermined threshold.

9. **(Original)** A method as set forth in claim 1 further including the step of transmitting a strength code from the first electronic device **(12)** to the second electronic device **(14)** in response to the overall signal strength being above the predetermined threshold and enabling the second electronic device **(14)** upon detecting the strength code.

10. **(Cancelled)**

11. **(Cancelled)**

12. **(Previously Presented)** A method as set forth in claim 1 wherein the step of transmitting the data **(44)** in the plurality of signals is further defined as modulating the plurality of data blocks **(48)**, **(50)**, **(52)** at the plurality of radio frequencies to establish a plurality of signals.

13. **(Previously Presented)** A method as set forth in claim 1 further including the step of scanning the predetermined number of detected signals during a time interval and determining the overall signal strength from the measured signal strengths during the time interval.

14. **(Original)** A method as set forth in claim 13 wherein the determining of the overall signal strength is further defined as isolating the detected signal having the maximum measured signal strength from all the predetermined number of detected signals to establish the overall signal strength.

15. **(Original)** A method as set forth in claim 13 wherein the determining of the overall signal strength is further defined as averaging the signal strength measurements measured during the time interval to establish the overall signal strength.

16. **(Original)** A method as set forth in claim 15 further including the step of transmitting the overall signal strength from the first electronic device **(12)** to the second electronic device **(14)** for comparing to the predetermined threshold and enabling the second electronic device **(14)** in response to the signal strength being above the predetermined threshold.

17. **(Original)** A method as set forth in claim 15 further including the step of transmitting a strength code from the first electronic device **(12)** to the second electronic device **(14)** in response to the overall signal strength being above the predetermined threshold and enabling the second electronic device **(14)** upon detecting the strength code.

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As discussed at paragraph [0034], the subject invention measures a signal

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>
> (C) the references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention; and
>
> (D) reasonable expectation of success is the standard with which obviousness is determined.
>
> *Hodosh v. Block Drug Co., Inc.*, 786 F.2d 1136, 1143 n.5, 229 USPQ 182, 187 n.5 (Fed. Cir. 1986).

2142 Legal Concept of *Prima Facie* Obviousness [R-1]

. . . The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness . . .

ESTABLISHING A *PRIMA FACIE* CASE OF OBVIOUSNESS

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not be based on applicants disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP '2143 - '2143.03 for decisions pertinent to each of these criteria.

The initial burden is on the examiner to provide some suggestion of the desirability of doing what the inventor has done. To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references. *Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985).

2143.01 Suggestion or Motivation To Modify the References

...

THE PROPOSED MODIFICATION CANNOT RENDER THE PRIOR ART UNSATISFACTORY FOR ITS INTENDED PURPOSE

If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984)

2143.03 All Claim Limitations Must Be Taught or Suggested [R-1]

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). All words in a claim must be considered in judging the patentability of that claim against the prior art. *In re Wilson*, 424 F.2d 1382, 165 USPQ 494, 496

(CCPA 1970). If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837, F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

As further set forth in *In re Sang Su Lee*, 277 F.3d 1338 (Fed. Cir. 2002), citing *Brown & Williamson Tobacco Corp. v. Phillip Morris, Inc.*, 229 F.3d 1120, 1124-25 (Fed. Cir. 2000), for a rejection of a claim under 35 U.S.C. § 103(a), it is required that there be some teaching or motivation found within the references themselves that would lead one of ordinary skill in the art to combine the references and, furthermore, that once combined the references must either disclose each and every limitation of the claim or make obvious any such limitations not disclosed. Absent a teaching or motivation within the references themselves for combining the references, it is improper for the Examiner to combine the references. *Id.*

First, the Examiner has failed to provide some teaching, suggestion, or motivation within the references themselves that would lead one of ordinary skill in the art to combine the references. Wallstedt is directed toward a first electronic device 1 maintaining contact with a receiver, such as a base station 5 of cellular network, while a second electronic device 2 also maintains contact with the base station 5. Noise that is transmitted from the two electronic devices 1, 2 creates interference at the other frequencies for the other device. This additional noise causes the system to operate improperly. These two devices do not interact with one another and do not establish communication between the first electronic device and the second electronic device. Decker et al. is simply directed toward a method of transmitting partitioned data at different frequencies. Even though both references relate to transmitting signals, there must be some suggestion or motivation to combine the teachings of the references. One skilled in the art would not look to Decker et al. for

any reason other than to implement frequency hopping spread spectrum techniques, which is old and well known in the art, into a cellular system of Wallstedt. However, there is no teaching, suggestion, or motivation within the references themselves that would lead one of ordinary skill in the art to combine the references.

Secondly, even if the references were combined, the references do not disclose each and every limitation of the claimed invention nor make obvious those limitations not disclosed. Specifically, the limitation of determining an overall signal strength from a predetermined number of measured signal strengths and comparing the overall signal strength to a predetermined threshold is not disclosed. Wallstedt discloses measuring a strength of a noise signal transmitted from one device at one frequency and determining if the noise is interfering with any signals from other devices on that frequency. If the noise signal is interfering with the other signal from the other device, then either the signal is ignored or the device is disabled. Decker et al. discloses transmitting data in data packets at multiple frequencies. In the subject invention, if the measured signals were ignored, the system would lack the added security that creates the secured system. Likewise, if the device was disabled in the subject invention, the purpose of creating the secured communication between the first electronic device 12 and the second electronic device 14 would be defeated. Therefore, even if combined, these references do not disclose determining the overall signal strength from the predetermined number of measured signal strengths and do not disclose comparing the overall signal strength to the predetermined threshold.

Further, the limitation of enabling a second electronic device in response to the overall strength being above the predetermined threshold and disabling the second electronic device in response to the overall signal strength being below the

predetermined threshold is not disclosed. As discussed above, one purpose of the subject invention is to only allow access to an authorized user having the first electronic device 12 that is within a close proximity to the second electronic device 14. Since these devices 12, 14 communicate using frequency hopping spread spectrum techniques, the overall signal strength must be determined and compared to the predetermined threshold in order to create the secured system. Even if these references were combined and the noise signal was transmitted at multiple frequencies, the device transmitting the signal would be disabled in response to the signal strength being above the predetermined threshold. Disabling the device would not create a secure system that only allows access to authorized users within close proximity. Contrasting the subject invention, the device is only enabled in response to the overall signal strength being above the predetermined threshold, thereby creating the secure system. Therefore, the limitation of enabling and disabling the second electronic device in response to the overall strength being above and below the predetermined threshold is not disclosed.

In summary, an obviousness rejection using the prior art of record cannot be sustained against Claims 1-3, 5, 7-9, 12, 13, and 15-17. It is respectfully submitted that the rejection of these claims under 35 U.S.C. §103 is improper. The Examiner's position in this rejection, which is wholly unsupported by the prior art cited, must be reversed.

Rejection of Claims 6 and 14 Under 35 U.S.C. §103(a)

Claims 6 and 14 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Wallstedt et al. in view of Decker et al. and further in view of Nicholson (U.S. Patent No. 4,980,897). Claims 6 and 14 depend from independent claim 1, thus claim

1 being allowable, the rejection is now moot.

CLOSING

For the reasons set forth above, the rejections of Claims 1-9 and 12-17 under 35 U.S.C. §103 must be reversed.

Respectfully submitted,

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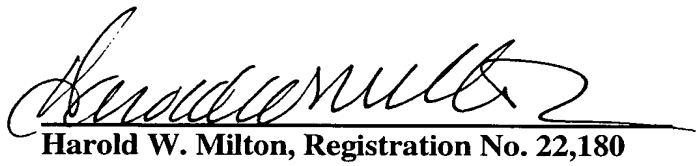

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CERTIFICATE OF MAILING

I hereby certify that the attached Appeal Brief for application serial number 09/998,659 filed November 29, 2001 is being deposited with the United States Postal Service as first class mail, postage prepaid, in an envelope addressed to the Mail Stop Appeal Brief – Patents, Commissioner of Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450, on this **February 4, 2004**.

Anne L. Kubit

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(9) Appendix

1. **(Previously Presented)** A method of determining proximity of a user **(11)** having a first electronic device **(12)** to a second electronic device **(14)** for allowing the user **(11)** access to the second electronic device **(14)**, said method comprising the steps of:

partitioning data **(44)** stored within the second electronic device **(14)** into a plurality of data blocks **(48)**, **(50)**, **(52)** for transmittance of the data blocks **(48)**, **(50)**, **(52)** over wireless connections to the first electronic device **(12)**;

spreading the plurality of data blocks **(48)**, **(50)**, **(52)** over a plurality of radio frequencies **(*f*1, *f*2, *f*3)** such that each of the data blocks **(48)**, **(50)**, **(52)** is transmitted at a different of the frequencies **(*f*1, *f*2, *f*3)** for secure transmission between the first electronic device **(12)** and the second electronic device **(14)**;

transmitting the data blocks **(48)**, **(50)**, **(52)** in a plurality of signals at the different frequencies **(*f*1, *f*2, *f*3)** to establish communication between the first electronic device **(12)** and the second electronic device **(14)**;

detecting the plurality of signals at the different frequencies with the first electronic device **(12)**;

measuring a signal strength for each of a predetermined number of the detected plurality of signals at the different frequencies **(*f*1, *f*2, *f*3)**;

determining an overall signal strength from the predetermined number of measured signal strengths and comparing the overall signal strength to a predetermined threshold; and

enabling the second electronic device **(14)** in response to the overall signal strength being above the predetermined threshold and disabling the second

electronic device **(14)** in response to the overall signal strength being below the predetermined threshold.

2. **(Original)** A method as set forth in claim 1 wherein the step of determining the overall signal strength is further defined as averaging the signal strength measurements for the predetermined number of detected signals to establish the overall signal strength.

3. **(Original)** A method as set forth in claim 1 wherein the step of determining the overall signal strength is further defined as isolating the detected signal having the maximum measured signal strength from all the predetermined number of detected signals to establish the overall signal strength.

4. **(Original)** A method as set forth in claim 1 wherein the step of determining the overall signal strength is further defined as converting each of the signal strength measurements for each of the predetermined number of detected signals to logarithmic values and averaging the logarithmic values of all the predetermined number of detected signals to establish the overall signal strength.

5. **(Original)** A method as set forth in claim 1 further including the step of scanning the predetermined number of detected signals during a time interval and determining the overall signal strength from the measured signal strengths during the time interval.

6. **(Original)** A method as set forth in claim 5 wherein the determining of the overall signal strength is further defined as isolating the detected signal having the maximum measured signal strength from all the predetermined number of detected signals to establish the overall signal strength.

7. **(Original)** A method as set forth in claim 5 wherein the determining of the overall signal strength is further defined as averaging the signal strength measurements measured during the time interval to establish the overall signal strength.

8. **(Original)** A method as set forth in claim 1 further including the step of transmitting the overall signal strength from the first electronic device **(12)** to the second electronic device **(14)** for comparing to the predetermined threshold and enabling the second electronic device **(14)** in response to the signal strength being above the predetermined threshold.

9. **(Original)** A method as set forth in claim 1 further including the step of transmitting a strength code from the first electronic device **(12)** to the second electronic device **(14)** in response to the overall signal strength being above the predetermined threshold and enabling the second electronic device **(14)** upon detecting the strength code.

10. **(Cancelled)**

11. **(Cancelled)**

12. **(Previously Presented)** A method as set forth in claim 1 wherein the step of transmitting the data **(44)** in the plurality of signals is further defined as modulating the plurality of data blocks **(48)**, **(50)**, **(52)** at the plurality of radio frequencies to establish a plurality of signals.

13. **(Previously Presented)** A method as set forth in claim 1 further including the step of scanning the predetermined number of detected signals during a time interval and determining the overall signal strength from the measured signal strengths during the time interval.

14. **(Original)** A method as set forth in claim 13 wherein the determining of the overall signal strength is further defined as isolating the detected signal having the maximum measured signal strength from all the predetermined number of detected signals to establish the overall signal strength.

15. **(Original)** A method as set forth in claim 13 wherein the determining of the overall signal strength is further defined as averaging the signal strength measurements measured during the time interval to establish the overall signal strength.

16. **(Original)** A method as set forth in claim 15 further including the step of transmitting the overall signal strength from the first electronic device **(12)** to the second electronic device **(14)** for comparing to the predetermined threshold and enabling the second electronic device **(14)** in response to the signal strength being above the predetermined threshold.

17. **(Original)** A method as set forth in claim 15 further including the step of transmitting a strength code from the first electronic device **(12)** to the second electronic device **(14)** in response to the overall signal strength being above the predetermined threshold and enabling the second electronic device **(14)** upon detecting the strength code.